ACADEMIC ADVISING, FALL 2018

MS in MANAGEMENT SCIENCE & ENGINEERING
AGENDA

1. Your Arrival
2. Degree Overview and Requirements
3. Program Overview
4. Waiver Exams
6. Faculty Advisors
7. Next Steps
YOUR ARRIVAL

- Monday August 13 - Columbia IEOR Beer & BBQ at Brooklyn Brewery
- Thursday August 16 - Columbia MSE Program Kick-Off [MANDATORY]
- Friday August 17 - Columbia Engineering Welcome Day
- Monday August 20 - Classes begin! [MANDATORY]
MS&E DEGREE OVERVIEW

1. Master of Science in Management Science & Engineering
2. Program offered by Columbia Engineering in partnership with Columbia Business
3. Expected Completion: August or December 2019
4. Expected Degree Conferral: October 2019 or February 2020
DEGREE REQUIREMENTS

1. 36 credits: Five required core courses plus electives
2. MSE core: DROM B8000-060, IEOR E4004-001, IEOR E4111, IEOR E4101, IEOR E4102
3. ENGI E4000-010 is an MS degree requirement
4. No Pass/Fail courses
5. All courses must be completed at Columbia
6. Remain in good standing
7. Academic integrity
• Fall 2018 Semester
  – DROM B8000-060 Optimization and Simulation Bootcamp
  – IEOR E4004-001 Optimization Models and Methods
  – IEOR E4111 Operations Consulting
  – IEOR E4101 Probability, Statistics and Simulation
  – ENGI E4000-012 Professional Development Leadership
  – Semi Core or Breadth Elective(s)

• Spring 2019 Semester
  – IEOR E4102 Stochastic Models for MSE
  – Semi Core or Breadth Elective(s)

• Summer or Fall 2019
  – Semi Core or Breadth Elective(s)
PROBABILITY PART 1 WAIVER

- IEOR E4101 Probability Models is a foundational core course; inadequate preparation will lead to difficulty completing the program.
- You have an option to take the full course (3 points) or request to take a waiver exam to take the half course (1.5 points)
- To request a waiver exam, fill out the form: [https://goo.gl/forms/iLxJ0kMswDpJ1AMy1](https://goo.gl/forms/iLxJ0kMswDpJ1AMy1)
- Deadline to request the waiver: August 20, 2018
- Date of the waiver exam: August 27, 2018
IEOR E4501 WAIVER

• IEOR E4501 Tools for Analytics is a required co-requisite course for the IEOR E4523 Data Analytics for OR.

• You have an option to take the course in the fall or request a waiver in order to take higher level Business Analytics electives

• To request a waiver, fill out the form: https://goo.gl/forms/xFJB87Vt4E8HHDOj1

• Deadline to request the waiver: August 20, 2018

• Date of the waiver exam: August 24, 2018
DESCRIPTION OF COURSES

Industrial Engineering and Operations Research

The Department offers a variety of courses in theory and professional applications.

Topics range from financial engineering, health operations management, business analytics, decision risk analysis and many more.

Learn more about our course offerings below.

Downloadable IEOR Fall Course Schedule

https://ieor.columbia.edu/ieor-courses and expand for course description and/or syllabus
INTEREST IN CONSULTING

- IEME E4310 The Manufacturing Enterprise
- IEOR E4000 Operations Management
- IEOR E4407 Game Theoretic Models of Operations
- IEOR E4520 Applied Systems Engineering
- IEOR E4550 Entrepreneurial Business Creation
- IEOR E4711 Global Capital Markets
- IEOR E4555 Design and Agile Project Mgmt. Eng. Lab (Application required; Deadline: August 3rd)
- DROM B8107-060/061 Service Operations
- DROM B8510-061 Managerial Negotiations
INTEREST IN MANAGEMENT

- IEOR E4108 Supply Chain Management & Design
- IEOR E4506 Designing Digital Operating Models
- IEOR E4550 Entrepreneurial Business
- IEOR E4998 Managing Tech. Innovations
- DROM B8107-060/061 Service Operations
- DROM B8510-061 Managerial Negotiations
INTEREST IN FINANCE

• ECON GU4280 Corporate Finance (By application only; Deadline: August 3rd)
• IEOR E4403 Quantitative Corporate Finance
• IEOR E4578 Corporate Finance, Accounting & Investment
• IEOR E4700 Introduction to Financial Engineering
• IEOR E4711 Global Capital Markets
• DROM B8116-060 Risk Management
INTEREST IN ANALYTICS

- IEOR E4506 Designing Digital Operating Models
- IEOR E4525 Machine Learning for Financial Engineering & Operations
- IEOR E4540 Data Mining
- IEOR E4650 Business Analytics
- DROM B8131-060 Sports Analytics
- DROM B8116-060 Risk Management
- IEOR E4501 Tools for Analytics*
- IEOR E4523 Data Analytics for Operations Research*

*The above two courses will be opened for registration in late August. Priority is given to MSBA students.
INTEREST IN ENTREPRENEURSHIP

- IEOR E4403 Quantitative Corporate Finance
- IEOR E4550 Entrepreneurial Business Creation
- IEOR E4555 Design and Agile Project Mgmt. Eng. Lab (*Application Required*; Deadline: August 3rd)
- IEOR E4998 Managing Tech. Innovations
- DROM B8510-061 Managerial Negotiations
EXCLUSIVE BUSINESS SCHOOL COURSES

The following courses are special courses from the Business school exclusive to MS&E students:

- DROM B8107-060/061 Service Operations
- DROM B8131-060 Sports Analytics
- DROM B8510-061 Managerial Negotiation
- DROM B8116-060 Risk Management
Faculty advisor will be assigned beginning of September. For early registration inquiries, please email the IEO Academic Affairs Team.
YOUR ACTION ITEMS

1. Login to SSOL https://ssol.columbia.edu/ to register on July 30.

2. Register: IEOR E4004-001, E4111, E4101, DROM B8000-060, ENGI E4000-012, plus one elective.

3. Ask questions on our Canvas page.

4. Like! the IEOR Advising Facebook Page https://www.facebook.com/IEORAdvising/

5. Review academic calendar http://registrar.columbia.edu/
MS&E PROGRAM

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